AMENDMENTS TO THE CLAIMS:

Please amend the claims to cancel Claims 1-14 and add new Claims 15-24 as follows, this listing of the claims will replace all prior versions, and listings, of claims in the application:

Claims 1-14 (Canceled)

15. (New) A method for determining the position of the rotor in an electric motor comprising the following acts:

detecting the times when the rotor passes through a reference position;

adapting the period of a tunable oscillator so that the reference position passages occur at a predetermined phase of the oscillator; and

deriving the rotor position between the reference position passages from the oscillation of the oscillator, wherein the time duration between two reference position passages is measured and a time derived from this time duration is predetermined as the period of the oscillator, and that the rotor has n pole pairs and the reference position in each corresponds to the passage of a pole of each pole pair at a detector and that the derivation of the time predefined as the period of the oscillator comprises a step of averaging over time durations determined from respectively n successive reference position passages.

16. (New) The method according to claim 15, wherein on each passage of the rotor through the reference position, the phase of the oscillator is detected and the tuning frequency of the oscillator is corrected using the detected deviation.

17. (New) The method according to claim 15, wherein for each passage of the rotor through the reference position, the time which has elapsed since the previous passage is determined, the difference between this time duration and a time duration determined for the previous passage is calculated and the time derived as the oscillator period is corrected by adding hereto the difference weighted by a positive factor.

18. (New) The method according to claim 17, wherein the factor is between 0.3 and 0.7.

19. (New) The method according to claim 15, wherein the time profile of supply voltages applied to the plurality of phases of the motor is controlled using the derived rotor position.

20. (New) The method according to claim 19, wherein the supply voltages are controlled according to a pattern consisting of a sequence of discrete states, which are repeated cyclically with the detected period, where switching from one of the states to the next takes place in each case at a predefined rotor position.

21. (New) The method according to claim 15, wherein it is used on a motor of a household appliance, especially a washing machine.

22. (New) A device for determining the rotor position in an electric motor, comprising a detector disposed on the electric motor which is sensitive to the passage of the rotor through a reference position, and a phase-locking loop which can be synchronized to the output signal of the detector, which delivers an output signal representative for the position of the rotor, wherein the phase locking loop comprises a tunable oscillator, a phase comparator for delivering a correction signal representative for a phase difference between an output signal of the detector and an output signal of the tunable oscillator, a low-pass filter for the correction signal, a time-measuring circuit for determining a period duration between two passages of the rotor through the reference position and a superposition circuit for superposing an output signal of the time-measuring circuit representative of the determined period duration and the low-pass-filtered correction signal to produce a tuning signal for the oscillator, and that the time-measuring circuit comprises an average value circuit for forming the average of the time intervals between n successive passage of the rotor through the reference position.

23. (New) The device according to claim 22, wherein the detector is arranged in the magnetic field of the rotor.

24. (New) The device according to claim 22, wherein the time-measuring circuit determines the time which has elapsed since the previous passage for each passage of the rotor through the reference position, calculates the difference between this time duration and a time duration determined for the previous passage and corrects the time derived as the oscillator period by adding hereto the difference weighted by a positive factor.